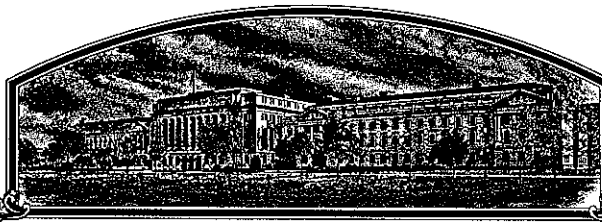


No.

8400078



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

OK Seeds

Whereas, THERE HAS BEEN PRESENTED TO THE
Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EX-
HAUSE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS PROVIDED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'Coker 485'

In Testimony Whereof, I have hereunto set
my hand and caused the seal of the Plant
Variety Protection Office to be affixed
at the City of Washington
this 31st day of May in
the year of our Lord one thousand nine
hundred and eighty-five.

Attest:

Kenneth H. Wason
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

John R. Block
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION

FORM APPROVED: OMB NO.0581-0055

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1. NAME OF APPLICANT(S) CR Seeds		2. TEMPORARY DESIGNATION 80-764		3. VARIETY NAME Coker 485	
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P.O. Box 1867 Hartsville, S.C. 29550		5. PHONE (Include area code) 803-332-7591 ^{8151 MS}		FOR OFFICIAL USE ONLY PVPO NUMBER 8400078	
6. GENUS AND SPECIES NAME Glycine max		7. FAMILY NAME (Botanical) Leguminosae		FILING DATE 4/5/84 TIME 12:30 <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.	
8. KIND NAME Soybean		9. DATE OF DETERMINATION April 1983		FEES RECEIVED AMOUNT FOR FILING \$ 1,800 DATE 4/5/84 AMOUNT FOR CERTIFICATE \$ 200.00 DATE 4/23/85	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) Partnership				12. DATE OF INCORPORATION	
11. IF INCORPORATED, GIVE STATE OF INCORPORATION				12. DATE OF INCORPORATION	
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS Chris Tinius DR. JOSHUA STANTON CR Seeds P.O. Box 1329 West Memphis, AR 72301					
14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED					
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <p>a. <input checked="" type="checkbox"/> Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)</p> <p>b. <input checked="" type="checkbox"/> Exhibit B, Novelty Statement</p> </div> <div style="width: 48%;"> <p>c. <input checked="" type="checkbox"/> Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)</p> <p>d. <input checked="" type="checkbox"/> Exhibit D, Additional Description of the Variety</p> </div> </div>					
15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.)					
<input checked="" type="checkbox"/> Yes (If "Yes," answer items 16 and 17 below) <input type="checkbox"/> No					
16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?			17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?		
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			<input checked="" type="checkbox"/> Foundation <input checked="" type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified		
18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES?					
<input type="checkbox"/> Yes (If "Yes," give names of countries and dates) <input checked="" type="checkbox"/> No					
19. HAVE RIGHTS BEEN GRANTED IN THE U.S. OR OTHER COUNTRIES?					
<input type="checkbox"/> Yes (If "Yes," give names of countries and dates) <input checked="" type="checkbox"/> No					
20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable. The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF APPLICANT 				DATE 3/27/84	
SIGNATURE OF APPLICANT 				DATE 1	

EXHIBIT A: Origin and Breeding History of Variety

8400078

Coker 485 Soybean

<u>YEAR</u>	<u>GENERATION</u>	<u>ACTIVITY</u>
1974		Cross made: Centennial x (Co71-211 x Hutton) F ₁
1975	F ₁	Rows 20-21 grown in field
1976	F ₂	Row 109 Harvested in bulk
1977	F ₃	Row 42 Harvested in bulk
1978	F ₄	Row 42 Plants selected
1979	F ₅	Plant row 363
1980	F ₆	Assigned breeding number 80-764. Replicated yield testing. Determined that 80-764 was segregating for seed coat luster. Plants selected, dull and shiny composites produced. Observation and testing verified that only difference between composites was seed coat luster.
1981	F ₇	Replicated yield testing. Dull and shiny composites increased.
1982	F ₈	Further yield testing. Dull composite increased.
1983	F ₉	Breeder seed produced. Named Coker 485
1984	F ₁₀	Registered seed sold.

Variants: As many as 0.5% shiny seed.

Evidence of stability: After observing seed and plants for 3 generations since composite line produced, seed and plant characters have been uniform.

EXHIBIT B: Novelty Statement Coker 485 Soybean

Coker 485 most resembles the cultivar Forrest.

Coker 485 differs from Forrest in that Coker 485 has purple flowers, dull seed coats and seeds averaging 17.0g/100 whereas Forrest has white flowers, shiny seed coats, and seeds averaging 12.5g/100.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Soybean)

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (*Glycine max* L.)

NAME OF APPLICANT(S) CR Seeds	TEMPORARY DESIGNATION 80-764	VARIETY NAME Coker 485
ADDRESS (Street and No., or R.F.D. No., City, State, and Zip Code) P.O. Box 1867 Hartsville, S.C 29550		FOR OFFICIAL USE ONLY PVPO NUMBER 8400078

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g.,).

1. SEED SHAPE:



1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)

3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)

2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)

4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

2. SEED COAT COLOR: (Mature Seed)

1 = Yellow

2 = Green

3 = Brown

4 = Black

5 = Other (Specify) _____

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

1 = Dull ('Corsoy 79'; 'Braxton')

2 = Shiny ('Nebsoy'; 'Gasoy 17')

4. SEED SIZE: (Mature Seed)

Grams per 100 seeds

5. HILUM COLOR: (Mature Seed)

1 = Buff

2 = Yellow

3 = Brown

4 = Gray

5 = Imperfect Black

6 = Black

7 = Other (Specify) _____

6. COTYLEDON COLOR: (Mature Seed)

1 = Yellow

2 = Green

7. SEED PROTEIN PEROXIDASE ACTIVITY:

1 = Low

2 = High

8. SEED PROTEIN ELECTROPHORETIC BAND:

1 = Type A (SP1^a)2 = Type B (SP1^b)

9. HYPOCOTYL COLOR:

1 = Green only ('Evans'; 'Davis')

2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')

3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')

4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

10. LEAFLET SHAPE:

1 = Lanceolate

2 = Oval

3 = Ovate

4 = Other (Specify) _____

11. LEAFLET SIZE:

☐ 21 = Small ('Amsoy 71'; 'A5312')
3 = Large ('Crawford'; 'Tracy')

2 = Medium ('Corsoy 79'; 'Gasoy 17')

12. LEAF COLOR:

☐ 21 = Light Green ('Weber'; 'York')
3 = Dark Green ('Gnome'; 'Tracy')

2 = Medium Green ('Corsoy 79'; 'Braxton')

13. FLOWER COLOR:

☐ 2

1 = White

2 = Purple

3 = White with purple throat

14. POD COLOR:

☐ 1

1 = Tan

2 = Brown

3 = Black

15. PLANT PUBESCENCE COLOR:

☐ 2

1 = Gray

2 = Brown (Tawny)

16. PLANT TYPES:

☐ 21 = Slender ('Essex'; 'Amsoy 71')
3 = Bushy ('Gnome'; 'Govan')

2 = Intermediate ('Amcor'; 'Braxton')

17. PLANT HABIT:

☐ 1

1 = Determinate ('Gnome'; 'Braxton')

2 = Semi-Determinate ('Will')

3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

18. MATURITY GROUP:

☐ 0 ☐ 8

1 = 000

2 = 00

3 = 0

4 = I

5 = II

6 = III

7 = IV

8 = V

9 = VI

10 = VII

11 = VIII

12 = IX

13 = X

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

BACTERIAL DISEASES:

☐ 2Bacterial Pustule (*Xanthomonas phaseoli* var. *sojensis*)☐ 0Bacterial Blight (*Pseudomonas glycinea*)☐ 0Wildfire (*Pseudomonas tabaci*)

FUNGAL DISEASES:

☐ 0Brown Spot (*Septoria glycines*)Frogeye Leaf Spot (*Cercospora sojae*)☐ 0

Race 1

☐ 0

Race 2

☐ 0

Race 3

☐ 0

Race 4

☐ 0

Race 5

☐ 0

Other (Specify)

☐ 0Target Spot (*Corynespora cassicola*)☐ 0Downy Mildew (*Peronospora trifoliorum* var. *manshurica*)☐ 2Powdery Mildew (*Microspheera diffusa*)☐ 0Brown Stem Rot (*Cephalosporium gregatum*)☐ 0Stem Canker (*Diaporthe phaseolorum* var. *caulivora*)

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

FUNGAL DISEASES: (Continued)

- Pod and Stem Blight (*Diaporthe phaseolorum* var. *sojae*)
 Purple Seed Stain (*Cercospora kikuchii*)
 Rhizoctonia Root Rot (*Rhizoctonia solani*)
 Phytophthora Rot (*Phytophthora megasperma* var. *sojae*)
 Race 1 Race 2 Race 3 Race 4 Race 5 Race 6 Race 7
 Race 8 Race 9 Other (Specify) _____

VIRAL DISEASES:

- Bud Blight (Tobacco Ringspot Virus)
 Yellow Mosaic (Bean Yellow Mosaic Virus)
 Cowpea Mosaic (Cowpea Chlorotic Virus)
 Pod Mottle (Bean Pod Mottle Virus)
 Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

- Soybean Cyst Nematode (*Heterodera glycines*)
 Race 1 Race 2 Race 3 Race 4 Other (Specify) _____
 Lance Nematode (*Hoplolaimus Colombus*)
 Southern Root Knot Nematode (*Meloidogyne incognita*)
 Northern Root Knot Nematode (*Meloidogyne Hapla*)
 Peanut Root Knot Nematode (*Meloidogyne arenaria*)
 Reniform Nematode (*Rotylenchulus reniformis*)
 OTHER DISEASE NOT ON FORM (Specify): _____

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- Iron Chlorosis on Calcareous Soil
 Other (Specify) _____

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

- Mexican Bean Beetle (*Epilachna varivestis*)
 Potato Leaf Hopper (*Empoasca fabae*)
 Other (Specify) _____

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	Forrest	Seed Coat Luster	Hutton
Leaf Shape	Forrest	Seed Size	Hutton
Leaf Color	Forrest	Seed Shape	Hutton
Leaf Size	Forrest	Seedling Pigmentation	Hutton

23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/ POD
				CM Width	CM Length	% Protein	% Oil		
Submitted Coker 485								17.0	
Name of Similar Variety Forrest								12.5	

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.J. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A₂ in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

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EXHIBIT D: Additional Description of Variety

Coker 485 Soybean

Analyses performed at the Federal Seed Laboratory in Beltsville, MD indicate that Coker 485 has the following additional characteristics:

seed coat peroxidase activity: 100%-

seed urease: 39% fast, 61% slow

seedling pubescence angle: erect